

ABSTRACT

A cylindrical roller bearing 1 includes an inner ring 2 having a flange portion 6 provided with a roller guide-surface 7 which contacts with and guides the end faces of the cylindrical rollers 4. Defining that the diameter of the cylindrical roller 4 is D_a , the end face 4a of the cylindrical roller away from the center axis of the cylindrical roller by $0.40D_a$ in the radial direction is a first position A, and the end face 4a of the cylindrical roller away from the center axis of the cylindrical roller by $0.35D_a$ in the radial direction is a second position B, the end face 4a of the cylindrical roller contacts with the roller guide-surface 7 of the flange portion between the first position A and the second position B, the end face 4a of the cylindrical roller has a convex-shaped crowning portion 4b formed by a continuous curve which passes the first position A and the second position B, and an angle α formed between a straight line connecting the first position A and the second position B and a straight line perpendicular to the center axis of the cylindrical roller is set to be 0.5° or less.